



**Memorandum Core # 176**

To: UNCCMC, Hillsborough Hospital, and Eastowne Medical Office Physicians, Housestaff, Nursing Coordinators, Department Heads, and Supervisors

From: *MCW* Herbert C Whinna, MD, PhD  
Medical Director, UNCCMC McLendon Clinical Laboratories and UNC Hillsborough Hospital Laboratory

*SWC* Steven W. Cotten, PhD  
Director of Automated Chemistry, UNC Medical Center

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**Subject: Reference range changes to serum and urine creatinine**

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Due to an unexpected supply chain disruption the laboratories at UNC Medical Center, Hillsborough Hospital, and Eastowne Medical Office will be switching creatinine reagents from enzymatic creatinine measurement to the Jaffe reaction over the next week. This change will impact the reference ranges and potential interferences.

These transitions may not be synchronized at all locations. The EPIC reference range displayed will be based on the reagent used for measurement.

Serum	Current Method (Enzymatic) mg/dL	New Method (Jaffe) mg/dL
Adult Female	0.5-0.8	0.55-1.02
Adult Male	0.6-1.1	0.70-1.30
Adult Unspecified	0.6-0.8	0.70-1.02

Urine	Current Method (Enzymatic) mg/day	New Method (Jaffe) mg/day
Adult Female	600-1800	600-1800
Adult Male	800-2000	950-2490
Adult Unspecified	800-1800	950-1800

Random urine specimens do not have defined reference ranges and are not impacted.

Potential interferences in the new creatinine assay include:

Compound	Interference Concentration	Creatinine Concentration mg/dL	Result Bias
Bilirubin, unconjugated	15 mg/dL	1.62	-13.4%
Glucose	332 mg/dL	1.61	+10.6%
Cefoxitin	5.0 mg/dL	1.53	+17.0%
Pyruvate	10 mg/dL	1.53	+17.6%
Dopamine	100 mg/dL	1.53	+13.7%
Total Protein	12 mg/dL	1.71	+10.5%

For questions please contact

Director of Automated Chemistry, UNC Medical Center:

[Steven.Cotten@unchealth.unc.edu](mailto:Steven.Cotten@unchealth.unc.edu)

Medical Director, UNC Hillsborough Hospital Laboratory:

[Herbert.Whinna@unchealth.unc.edu](mailto:Herbert.Whinna@unchealth.unc.edu)